IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. (Currently Amended) An image reading device comprising:

an imaging device that has photo-diodes and color filters provided on said imaging device, said color filter having color filter elements of a plurality of colors, said photo-diodes generating an original image data containing pixel data, each of which corresponds to one of said colors which are arranged in a predetermined distribution;

a reading processor that reads said pixel data from said imaging device;

a thinning processor that thins out some of said pixel data to generate a thinned image data, ~~the thinned pixel data being uniformly distributed, spaced from each other by at least one thinned out pixel data~~ each pixel in the thinned pixel data being separated from each pixel by at least one pixel data, and colors of the thinned pixel data being arranged in said predetermined distribution; and

an interpolation processor that performs an interpolation process on said thinned image data to generate an interpolated image data for each of said colors.

2. (Original) A device according to claim 1, wherein said colors of said original image data are arranged in such a manner that a (m x m) matrix, formed by said plurality of colors, is repeated, and said thinning processor thins out (m x (n-1)) number of pixel data for every (m x (n-1)+1) number of pixel data in a horizontal direction and a vertical direction of an image corresponding to said original image data, wherein each of "m" and "n" is a positive integer greater than 1.

3. (Original) A device according to claim 2, wherein said colors of said original image data are arranged in such a manner that a (2 x 2) matrix, formed by said plurality of colors, is repeated, and said thinning processor thins out (2 x (n-1)) number of pixel data for every (2 x (n-1)+1) number of pixel data in a horizontal direction and a vertical direction of an image corresponding to said original image data.

4. (Original) A device according to claim 3, wherein said thinning processor thins out 2 pixel data for every 3 pixel data.

5. (Original) A device according to claim 3, wherein said thinning processor thins out 4 pixel data for every 5 pixel data.

6. (Previously Presented) A device according to claim 4, wherein said colors of said color filter elements are arranged in the Bayer arrangement.

7. (Previously Presented) A device according to claim 4, wherein said color filter has red filter elements, green filter elements and blue filter elements, and in said (2 x 2) matrix, said green filter elements are positioned on a diagonal line, and said red filter element and said blue filter element are positioned on another diagonal line.

8. (Original) A device according to claim 3, further comprising a reduction ratio setting processor that sets a reduction ratio in accordance with which the number of pixel data thinned out by said thinning processor is determined.

9. (Original) A device according to claim 1, further comprising a reduced image indicating processor that forms a color image based on said interpolated image data and indicates said color image.

10. (Currently Amended) An image reading device in which pixel data of a first image, formed on an imaging device having an on-chip color filter of a plurality of colors,

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are point-sequentially read from said imaging device and subjected to an interpolation process to generate components of said plurality of colors for each of said pixel data to obtain a second image, said image reading device comprising:

a thinning processor that thins out some of said pixel data before said pixel data are subjected to said interpolation process, so that said second image is composed of a smaller number of pixels than said first image,

wherein ~~the thinned pixel data are spaced from each other by at least one thinned out pixel data and uniformly distributed~~ each pixel in the thinned pixel data is separated from each pixel by at least one pixel data.

11. (Previously Presented) A device according to claim 5, wherein said colors of said color filter elements are arranged in the Bayer arrangement.

12. (Previously Presented) A device according to claim 5, wherein said color filter has red filter elements, green filter elements and blue filter elements, and in said (2 x 2) matrix, said green filter elements are positioned on a diagonal line, and said red filter element and said blue filter element are positioned on another diagonal line.

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